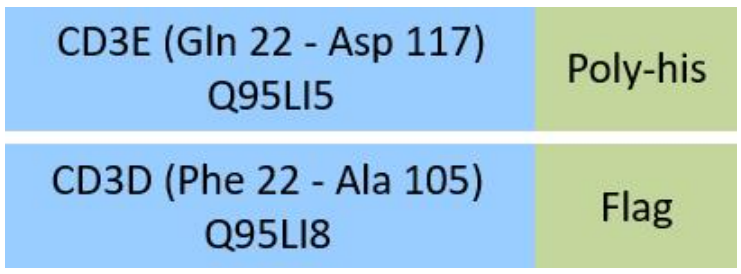
Synonym

CD3E & CD3D,CD3 delta & CD3 epsilon

Source

Cynomolgus CD3E&CD3D Heterodimer Protein, His Tag&Flag Tag(CDD-C52W4) is expressed from human 293 cells (HEK293). It contains AA Gln 22 - Asp 117 (CD3E) & Phe 22 - Ala 105 (CD3D) (Accession # Q95LI5 (CD3E) & Q95LI8 (CD3D)).
Predicted N-terminus: Gln 22 (CD3E) & Phe 22 (CD3D)

Molecular Characterization



Cynomolgus CD3E&CD3D Heterodimer Protein, His Tag&Flag Tag is produced by co-expression of CD3E and CD3D, has a calculated MW of 15.5 kDa (CD3E) and 14.5 kDa (CD3D). Subunit CD3E is fused with his tag at the C-terminus and subunit CD3D is fused with flag tag at the C-terminus. The predicted N-terminus is Gln 22 (CD3E) and Phe 22 (CD3D). The reducing (R) heterodimer protein migrates as 15 kDa, 17 kDa, 27-32 kDa when calibrated against Star Ribbon Pre-stained Protein Marker due to glyosylation.

Endotoxin

Less than 1.0 EU per μg by the LAL method / rFC method.

Purity

>90% as determined by SDS-PAGE.

>95% as determined by SEC-MALS.

Formulation

Lyophilized from 0.22 μm filtered solution in PBS, pH7.4 with trehalose as protectant.

Contact us for customized product form or formulation.

Reconstitution

Please see Certificate of Analysis for specific instructions.

For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.

Storage

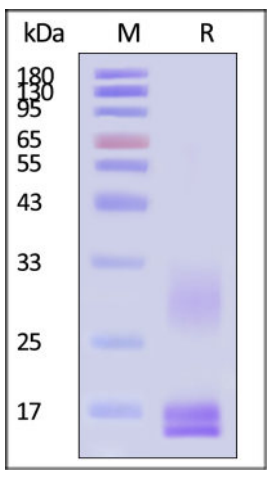
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

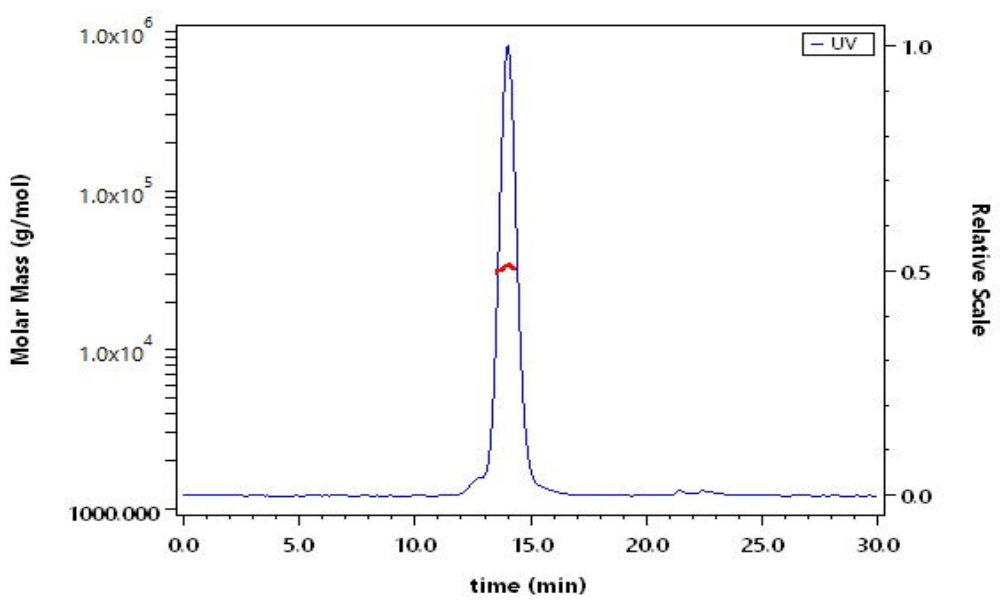
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE



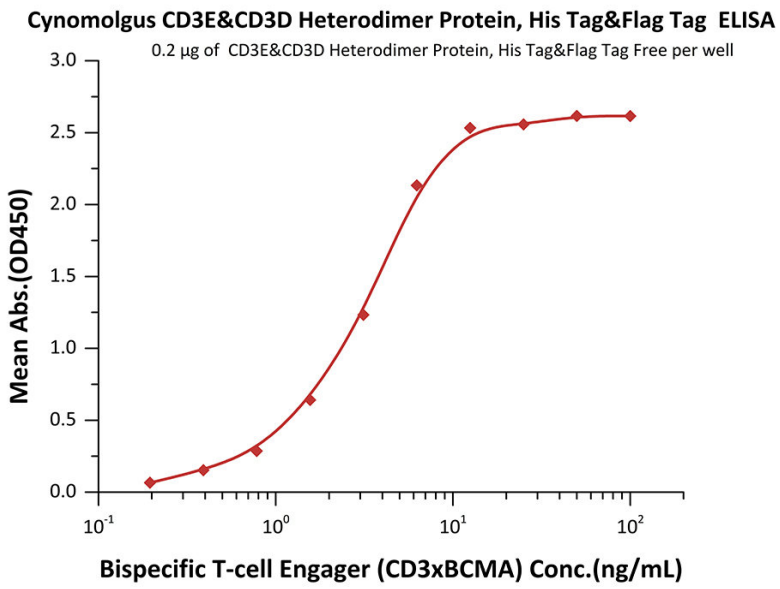
Cynomolgus CD3E&CD3D Heterodimer Protein, His Tag&Flag Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90% (With Star Ribbon Pre-stained Protein Marker).

SEC-MALS



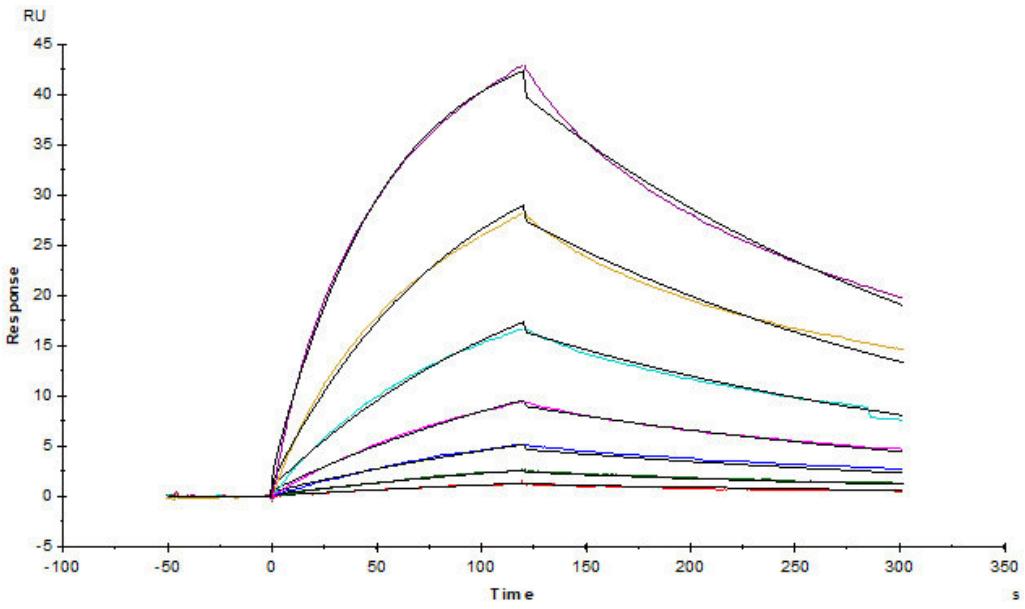
The purity of Cynomolgus CD3E&CD3D Heterodimer Protein, His Tag&Flag Tag (Cat. No. CDD-C52W4) is more than 95% and the molecular weight of this protein is around 33-50 kDa verified by SEC-MALS.
Report

Bioactivity-ELISA



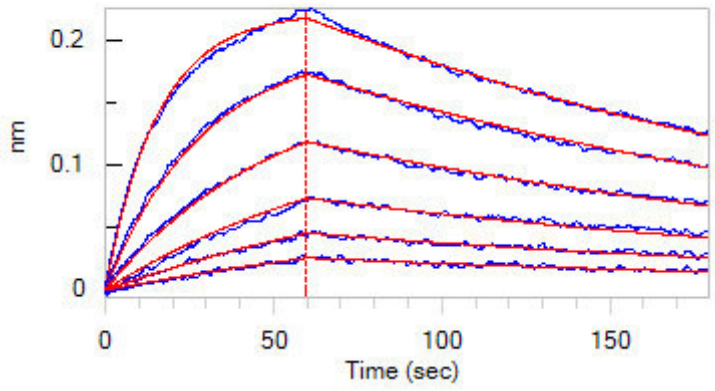
Immobilized Cynomolgus CD3E&CD3D Heterodimer Protein, His Tag & Flag Tag (Cat. No. CDD-C52W4) at 2 μg/mL, add increasing concentrations of Bispecific T cell Engager (CD3 X BCMA) and then add Biotinylated BCMA Fc,Avitag (Cat. No. BC7-H82F0) at 0.2 μg/mL. Detection was performed using HRP-conjugated streptavidin with sensitivity of 0.2 ng/mL (Intact assay, QC tested).

Bioactivity-SPR



Bispecific T-cell Engager (CD3 X BCMA) immobilized on CM5 Chip can bind Cynomolgus CD3 epsilon&CD3 delta Heterodimer Protein, His Tag&Flag Tag (Cat. No. CDD-C52W4) with an affinity constant of 64.4 nM as determined in a SPR assay (Biacore T200) (Routinely tested).

Bioactivity-BLI



Loaded Human CD3×BCMA scFV on AHC Biosensor via DMF Filed Human BCMA, Fc Tag (Cat. No. BC7-H5254), can bind Cynomolgus CD3E&CD3D Heterodimer Protein, His Tag&Flag Tag (Cat. No. CDD-C52W4) with an affinity constant of 8 nM as determined in BLI assay (ForteBio Octet Red96e) (Routinely tested).

Background

T-cell surface glycoprotein CD3 delta & CD3 epsilon chain, also known as CD3D & CD3E or CD3D&CD3E respectively, are single-pass type I membrane proteins. CD3D, together with CD3- epsilon(CD3E) , CD3-gamma and CD3-zeta, and the T-cell receptor alpha/beta and gamma/delta heterodimers, forms the T cell receptor-CD3 complex. T cell receptor-CD3 complex plays an important role in coupling antigen recognition to several intracellular signal-transduction pathways.